

Work Order ID 147739

ASD
147739

Page 1

Friday, June 10, 2016 11:18:37 AM

Item ID: 647.3916 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Deflector
 Start Date: 6/10/2016 Start Qty: 6.00 ***6*** Cust Item ID:
 Required Date: 6/30/2016 Req'd Qty: 6.00 ***6*** Customer:
 Reference:

Approvals: Process Plan: *V* Date: Tooling: Date: Run Start ***NR1***
 QC: Date: SPC (Y/N): Date: Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
647.3900	C2

100	BAND SAW	0.00				6			2/16-19
100									
Bandsaw	Memo	0.00							
Jeaspa Bandsaw	Cut Blank at 16.625"								

110	HAAS CNC VERTICAL MACHINING #1	0.53				6			DAS 14 2L
110									
HAAS 4	Memo	0.66							16/06/21
HAAS CNC vertical machine #4	1-Machine per folio FB295 DWG REV: <u>C2</u> FOLIO REV: <u>AA</u>								
	2- deburr and break all sharp edges								

see attached

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	

Root Cause				FAULT CATEGORY							
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong	☐
Design	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence	☐
Past Expiry Date	☐	Manufacturing Process	☐	OTHER : _____							
Misidentified	☐	Past Due	☐								

Friday, June 10, 2016 11:18:37 AM

147739

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N900040100

Setup Start *NS1*

Stop *NS2*

6

Cust Item ID:

6

Customer:

Reference:

Run Start *NR1*

Stop ***NR2***

120

QC2- Inspect parts off machine FAI/FAIB

0.00

120

QC

Memo

0.01

Quality Control

14
9-89

16/06/21

130

QC8- Inspect parts - second check

0.00

130

QC

Memo

0.02

Quality Control

DAS
44
9-89 16-C6-28

140

Outsource process-Anodize per QSI017 4.1.10.1

0.00

140

Outsource4

Memo

179.99

Outsource process - Anodize

Issue P/O to ATG : 32911

1- Black Anodize as per Dwg 647.3900

2- PRIME AS PER DWG, SEE NOTE #2

Certification of Comformity is required

JUL 08 2016

**DAS
13
9-89**

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Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150	Receive & Inspect for Damage & Mat'l Certs	0.00							
150									
Packaging	Memo	0.02							
Packaging	Mat'l Certs req'd.								
155	QC5- Inspect part completeness to step on W/O	0.00							
155									
QC	Memo	0.02							
Quality Control									
180	Identify as per dwg & Stock Location <u>CLK023</u>	0.00							
180									
Packaging	Memo	0.01							
Packaging	***IDENTIFY AS PER APICAL MPP-120 BY STAMPING P# AND REV***								

Lex SP16-7-19.

DAS
38
9-89
JUL 20 2016

JUL 21 2016
DAS
8
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Work Order update only ☐

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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190	QC21- Final Inspection - Work Order Release	0.00							
190						DAS			
QC	Memo	0.10				21			JUL 21 2016
Quality Control						9-89			

DAS
21
9-89**JUL 21 2016**

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
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Root Cause		FAULT CATEGORY.							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
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Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER :							
Misidentified ☐	Past Due ☐								

Picklist Print

Page 1

Friday, June 10, 2016 11:18:37 AM

Work Order ID: 147739

147739

Parent Item: 647.3916

647 3916

Parent Item Name: Deflector

Start Date: 6/10/2016

Required Date: 6/30/2016

Start Qty: 6.00

Required Qty: 6.00

Comments: IPP REV A RQ 14/05/28 VERIFIED BY DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M7075T6B3.000x04.00 0		Purchased	No			100	f	12.8350	1.354	8.551579			

M7075T6B3 000x04 000

7075-T6 BAR 3.000' X 4.000" Grain along 3"

166-20

Location

Loc Qty

Loc Code

MAT006

12.835

m131225x3

6.335

m131999

0.5

m133426x3

6

~~m133512x2~~

~~134701x1~~

4.2

4.2



M7075T6B3.000 X 3.000 ^{CL} 16106121

1.36

M130938 → 1.36

mf 16106121

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Work Order update only ☐

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Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
OTHER : ☐									

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

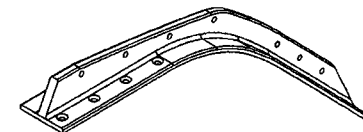
QA Closed: _____ Date: _____

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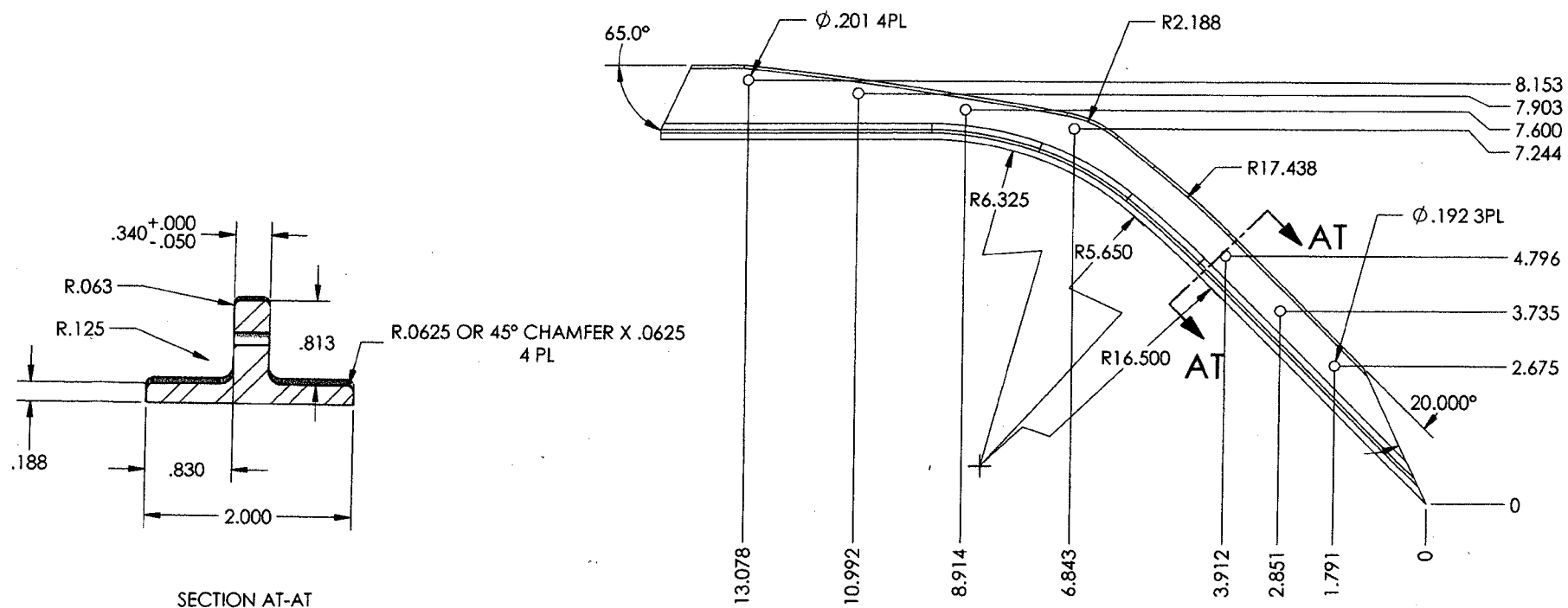
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Past Expiry Date ☐	Manufacturing Process ☐								
Misidentified ☐	Past Due ☐	OTHER :							

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NO 147735



647.3916



SECTION AT-AT

ORIGINAL DATE 10-04-10		APICAL INDUSTRIES	
DRAWN BY D. SCHUB		2608 TEMPLE HEIGHTS DR.	
CHECKED BY D. SCHUB		OCEANSIDE, CA. 92056-3512 (760)724-5300	
DRAWING APPROVAL P. BRAVO		DEFLECTORS	
CONTRACT NO.		SCALE NONE	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°		SHEET 11 OF 12	REV. C

DQA: _____ Date: _____



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Past Expiry Date ☐		Manufacturing Process ☐		OTHER : _____			
Misidentified ☐		Past Due ☐					

Jean-Luc Menard

From: Pablo Bravo
Sent: Monday, June 27, 2016 1:28 PM
To: Jean-Luc Menard
Subject: Re: 647.3916 DEVIATION

JL,

Sorry, I'm on holiday (we call it vacation here in the land of the free) without a lot of Internet service. If the mating cutter subassemblies fit, then the parts are okay as-is.

Pablo

On Jun 27, 2016, at 8:51 AM, Jean-Luc Menard <jmenard@dartaero.com> wrote:

Any news on this?
JL

From: Jean-Luc Menard
Sent: Tuesday, June 21, 2016 9:30 AM
To: Pablo Bravo <pbravo@dartaero.com>
Subject: 647.3916 DEVIATION

Hi Pablo,
We have a part that came in at .335", dimension is .340 +.000/-.005 in the section shown below in the iso view.
Is this acceptable?
THX
JL

<image002.png>

Jean-Luc Menard
Production Engineering Supervisor

DART AEROSPACE
T 1 613 632-5200 > 227
F 1 613 632-5246
1 800 556- 4166
www.dartaerospace.com





Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO32971**

Purchase Order Date 7/8/2016

PO Print Date 7/13/2016

Page Number 2 of 5

Order From :

VC-ATG001

Ship To : DART AEROSPACE LTD

A.T.G. INDUSTRIES INC.
731 INDUSTRIELLE ROAD
ROCKLAND, ON K4K 1T2
CANADA

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone

613-446-4544

Ship To Contact

Ship To Phone

Ship Via:

VENDOR'S TRUCK

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Terms

Net 30

Currency

CAD

FOB

FCA - (Free Carrier)

Line Total:

\$27.00

4 147632

D4703-043 LOCK PIN
REV. A

7/18/2016

10.00

\$2.70

\$27.00

Yes

7/18/2016

BLACK ANODIZE AS PER MIL-A-8625F TYPE III, CLASS 2

Line Total:

\$27.00

5

147739

647.3916 DEFLECTOR
REV. C

7/18/2016

6.00

\$18.10

\$108.60

Yes

7/18/2016

FINISH: HARD BLACK ANODIZE AS PER IAW MIL-A-8625 TYPE III, CLASS 2 / PRIME AS PER IAW MIL-P-23377J TYPE I CLASS N

Line Total:

\$108.60

6

147394

D4974-1 UPPER RAIL
REV. D

7/18/2016

4.00

\$10.80

\$43.20

Yes

7/18/2016

FINISH: HARD BLACK ANODIZE AS PER IAW MIL-A-8625 TYPE III, CLASS 2 / PRIME AS PER IAW MIL-P-23377J TYPE I CLASS N

Note:

7/13/2016



A.T.G. INDUSTRIES INC.
731 INDUSTRIELLE STREET
ROCKLAND, ON K4K 1T2
Canada

Ph: (613) 446-4544

Fax: (613) 446-4556

Pack List

Number: 911973

Date: 18-Jul-16

To

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ship To

CHANTAL LAVOIE
Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ph: 613 632-9577

Fax: 613 632-1053

Ph: 613 632-9577

Fax: 613 632-1053

Terms		Ship Via	
		BEST WAY	
Quantity	Description		
	PLEASE REFERENCE THE PACK LIST NUMBER ON ALL CORRESPONDENCE TO THIS SHIPMENT. IF YOU HAVE ANY QUESTIONS, PLEASE CALL AT (613) 446-4544.		
4 ea	Part: D5155-11 Co-Pilot Job: 19783	Rev: B PO: PO32971	Line: 1
12 ea	Part: 646.3711 CLIP Job: 19792	Rev: A PO: PO32971	Line: 10
1 ea	Part: ADMINISTRATION FEE ADMINISTRATION FEE Job: 19794	Rev: PO: PO32971	Line: 12
17 ea	Part: 646.3715 DOUBLER Job: 19793	Rev: A PO: PO32971	Line: 13
5 ea	Part: D5155-043 CO-PILOT Job: 19784	Rev: B PO: PO32971	Line: 2
10 ea	Part: D4726-1 HANDLE Job: 19785	Rev: A PO: PO32971	Line: 3
10 ea	Part: D4703-043 LOCK PIN Job: 19786	Rev: A PO: PO32971	Line: 4
6 ea	Part: 647.3916 DEFLECTOR Job: 19787	Rev: C PO: PO32971	Line: 5

8/16-7-19



A.T.G. INDUSTRIES INC.
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Ph: 613 632-9577

Fax: 613 632-1053

Ph: 613 632-9577

Fax: 613 632-1053

Terms		Ship Via	
		BEST WAY	
Quantity	Description		
4 ea	Part: D4974-1 UPPER RAIL Job: 19788	Rev: D PO: PO32971	Line: 6
10 ea	Part: 647.7813 CENTER PLATE Job: 19789	Rev: A PO: PO32971	Line: 7
16 ea	Part: 646.3717 DOUBLER Job: 19790	Rev: A PO: PO32971	Line: 8
2 ea	Part: D4973-1 UPPER CUTTER Job: 19791	Rev: C PO: PO32971	Line: 9
DATE: <u>18/7/16</u> CERTIFIED SIGNATURE: <u>[Signature]</u> RECEIVER SIGNATURE: <u>[Signature]</u> Note: This Packing Slip may contain parts that have been PLATED. Items that are plated may be subject to natural tarnishing and it is suggested that they be inspected within 24 hours of receipt. CERTIFICATE OF CONFORMANCE A.T.G. INDUSTRIES INC. CERTIFIES THAT ALL ITEMS IN THIS SHIPMENT CONFORM TO REQUIREMENTS. MADE IN CANADA.			